

Title (en)  
Method of preparing a carbon nanosphere having at least one opening, impregnated catalyst comprising the carbon nanosphere and fuel cell using this catalyst

Title (de)  
Verfahren zur Herstellung von Kohlenstoffnanokugel mit mindestens einer Öffnung, imprägnierter Katalysator mit Kohlenstoffnanokugeln und Brennstoffzelle unter Verwendung des Katalysators

Title (fr)  
Procédé de préparation d'une nanosphere de carbone avec au moins une ouverture, catalyseur imprégné comprenant cette nanosphere de carbone et pile à combustible utilisant ce catalyseur

Publication  
**EP 1655266 A1 20060510 (EN)**

Application  
**EP 05256467 A 20051018**

Priority  
KR 20040088218 A 20041102

Abstract (en)  
Provided are a carbon nanosphere having at least one opening, a method of preparing the same, a carbon nanosphere- supported catalyst using the carbon nanosphere having at least one opening, and a fuel cell using the carbon nanosphere- supported catalyst. The carbon nanosphere having at least one opening is obtained by preparing a carbon nanosphere and treating it with an acid so as to form the opening. The carbon nanosphere having at least one opening has higher utilization of a surface area and electrical conductivity and lower mass transfer resistance than a conventional carbon nanotube, thus allowing for higher current density and cell voltage with a smaller amount of metal catalyst per unit area of a fuel cell electrode. Further, in the method of preparing the carbon nanosphere having at least one opening, the carbon nanosphere having at least one opening can be obtained in a simple and efficient manner.

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Citation (search report)  

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